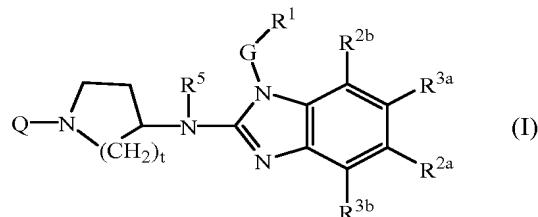


Claims

1. A compound of formula (I)



5 a prodrug, *N*-oxide, addition salt, quaternary amine, metal complex or stereochemically isomeric form thereof wherein

Q is  $C_{1-6}$ alkyl optionally substituted with one or more substituents each independently selected from the group consisting of trifluoromethyl,  $C_{3-7}$ cycloalkyl,  $Ar^2$ ,

hydroxy,  $C_{1-4}$ alkoxy,  $C_{1-4}$ alkylthio,  $Ar^2$ -oxy-,  $Ar^2$ -thio-,  $Ar^2(CH_2)_n$ oxy,

10  $Ar^2(CH_2)_n$ thio, hydroxycarbonyl, aminocarbonyl,  $C_{1-4}$ alkylcarbonyl,  $Ar^2$ carbonyl,  $C_{1-4}$ alkoxycarbonyl,  $Ar^2(CH_2)_n$ carbonyl, aminocarbonyloxy,  $C_{1-4}$ alkylcarbonyloxy,  $Ar^2$ carbonyloxy,  $Ar^2(CH_2)_n$ carbonyloxy,  $C_{1-4}$ alkoxycarbonyl( $CH_2)_n$ oxy, mono- or di( $C_{1-4}$ alkyl)aminocarbonyl, mono- or di( $C_{1-4}$ alkyl)aminocarbonyloxy, aminosulfonyl, mono- or di( $C_{1-4}$ alkyl)aminosulfonyl or a heterocycle selected

15 from the group consisting of pyrrolidinyl, pyrrolyl, dihydropyrrolyl, imidazolyl, triazolyl, piperidinyl, homopiperidinyl, piperazinyl, pyridyl and tetrahydro-pyridyl, wherein each of said heterocycle may optionally be substituted with oxo or  $C_{1-6}$ alkyl; or Q is  $C_{1-6}$ alkyl substituted with two substituents wherein one substituent is selected from the group consisting of amino, mono- and di $C_{1-4}$ alkyl-amino and  $Ar^2-C_{1-4}$ alkylamino and the other substituent is selected from the group consisting of carboxyl,  $C_{1-6}$ alkyloxycarbonyl,  $Ar^2-C_{1-4}$ alkyloxycarbonyl, aminocarbonyl and aminosulfonyl;

G is a direct bond or  $C_{1-10}$ alkanediyl optionally substituted with one or more substituents independently selected from the group consisting of hydroxy,

25  $C_{1-6}$ alkyloxy,  $Ar^1C_{1-6}$ alkyloxy,  $C_{1-6}$ alkylthio,  $Ar^1C_{1-6}$ alkylthio,

$HO(-CH_2-CH_2-O)_n-$ ,  $C_{1-6}$ alkyloxy(- $CH_2-CH_2-O)_n-$  and

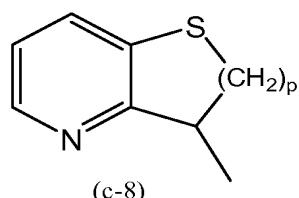
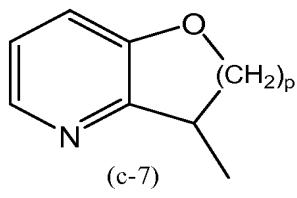
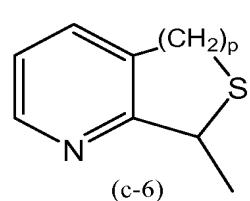
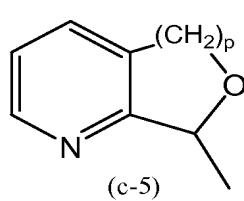
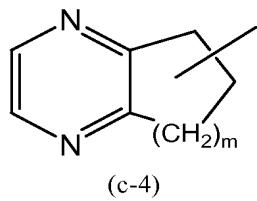
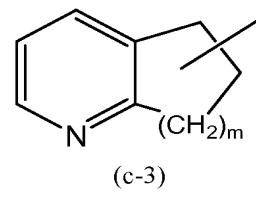
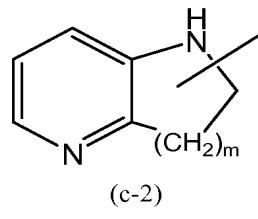
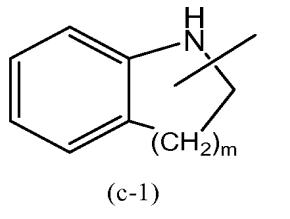
$Ar^1C_{1-6}$ alkyloxy(- $CH_2-CH_2-O)_n-$ ;

$R^1$  is  $Ar^1$  or a monocyclic or bicyclic heterocycle being selected from piperidinyl, piperazinyl, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, tetrahydro-

30 furanyl, thienyl, pyrrolyl, thiazolyl, oxazolyl, imidazolyl, isothiazolyl, pyrazolyl, isoxazolyl, oxadiazolyl, quinolinyl, quinoxaliny, benzofuranyl, benzothienyl, benzimidazolyl, benzoxazolyl, benzthiazolyl, pyridopyridyl, naphthiridinyl,

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*1H-imidazo[4,5-b]pyridinyl, 3H-imidazo[4,5-b]pyridinyl, imidazo[1,2-a]-pyridinyl, 2,3-dihydro-1,4-dioxino[2,3-b]pyridyl or a radical of formula*



;

wherein each of said monocyclic or bicyclic heterocycles may optionally be substituted

5 with 1 or where possible more, such as 2, 3, 4 or 5, substituents individually selected from the group of substituents consisting of halo, hydroxy, amino, cyano, carboxyl, C<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkyloxy, C<sub>1-6</sub>alkylthio, C<sub>1-6</sub>alkyloxyC<sub>1-6</sub>alkyl, Ar<sup>1</sup>,

Ar<sup>1</sup>C<sub>1-6</sub>alkyl, Ar<sup>1</sup>C<sub>1-6</sub>alkyloxy, hydroxyC<sub>1-6</sub>alkyl, mono-or di(C<sub>1-6</sub>alkyl)amino,

mono-or di(C<sub>1-6</sub>alkyl)aminoC<sub>1-6</sub>alkyl, polyhaloC<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkylcarbonylamino,

C<sub>1-6</sub>alkyl-SO<sub>2</sub>-NR<sup>4a</sup>-, Ar<sup>1</sup>-SO<sub>2</sub>-NR<sup>4a</sup>-, C<sub>1-6</sub>alkyloxycarbonyl, -C(=O)-NR<sup>4a</sup>R<sup>4b</sup>,

HO(-CH<sub>2</sub>-CH<sub>2</sub>-O)<sub>n</sub>-, halo(-CH<sub>2</sub>-CH<sub>2</sub>-O)<sub>n</sub>-, C<sub>1-6</sub>alkyloxy(-CH<sub>2</sub>-CH<sub>2</sub>-O)<sub>n</sub>-,

Ar<sup>1</sup>C<sub>1-6</sub>alkyloxy(-CH<sub>2</sub>-CH<sub>2</sub>-O)<sub>n</sub>- and mono-or di(C<sub>1-6</sub>alkyl)amino(-CH<sub>2</sub>-CH<sub>2</sub>-O)<sub>n</sub>-,

each n independently is 1, 2, 3 or 4;

one of R<sup>2a</sup> and R<sup>3a</sup> is C<sub>1-6</sub>alkyl and the other one of R<sup>2a</sup> and R<sup>3a</sup> is hydrogen;

15 in case R<sup>2a</sup> is different from hydrogen then R<sup>2b</sup> is hydrogen or C<sub>1-6</sub>alkyl, and R<sup>3b</sup> is hydrogen;

in case R<sup>3a</sup> is different from hydrogen then R<sup>3b</sup> is hydrogen or C<sub>1-6</sub>alkyl, and R<sup>2b</sup> is hydrogen; or

R<sup>3b</sup> is C<sub>1-6</sub>alkyl; and R<sup>3a</sup>, R<sup>2a</sup>, R<sup>2b</sup> all are hydrogen; or

20 R<sup>2b</sup> is C<sub>1-6</sub>alkyl; and R<sup>3a</sup>, R<sup>2a</sup>, R<sup>3b</sup> all are hydrogen;

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R<sup>4a</sup> and R<sup>4b</sup> can be the same or can be different relative to one another, and are each independently hydrogen or C<sub>1-6</sub>alkyl; or

R<sup>4a</sup> and R<sup>4b</sup> taken together may form a bivalent radical of formula -(CH<sub>2</sub>)<sub>s</sub>-;

R<sup>5</sup> is hydrogen or C<sub>1-6</sub>alkyl;

5 m is 1 or 2;

p is 1 or 2;

s is 4 or 5;

t is 1, 2 or 3;

Ar<sup>1</sup> is phenyl or phenyl substituted with 1 or more, such as 2, 3 or 4, substituents

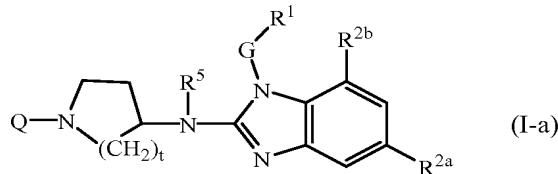
10 selected from halo, hydroxy, C<sub>1-6</sub>alkyl, hydroxyC<sub>1-6</sub>alkyl, polyhaloC<sub>1-6</sub>alkyl, and C<sub>1-6</sub>alkyloxy;

Ar<sup>2</sup> is phenyl or phenyl substituted with 1 or more, such as 2, 3 or 4, substituents

selected from the group consisting of halo, hydroxy, amino, cyano, C<sub>1-6</sub>alkyl, hydroxyC<sub>1-6</sub>alkyl, polyhaloC<sub>1-6</sub>alkyl, aminoC<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkyloxy, amino-

15 sulfonyl, aminocarbonyl, hydroxycarbonyl, C<sub>1-4</sub>alkylcarbonyl, mono- or di(C<sub>1-4</sub>alkyl)amino, mono- or di(C<sub>1-4</sub>alkyl)aminocarbonyl, mono- or di(C<sub>1-4</sub>alkyl)aminosulfonyl, mono- or di(C<sub>1-4</sub>alkyl)aminoC<sub>1-6</sub>alkyl and C<sub>1-4</sub>alkoxycarbonyl.

20 2. A compound as claimed in claim 1, wherein the compound has the formula



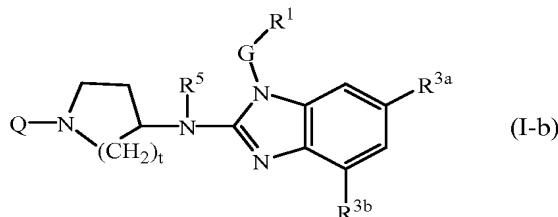
wherein Q, t, R<sup>5</sup>, G and R<sup>1</sup> are as claimed in claim 1; and

R<sup>2a</sup> is C<sub>1-6</sub>alkyl;

R<sup>2b</sup> is hydrogen or C<sub>1-6</sub>alkyl.

25

3. A compound as claimed in claim 1, wherein the compound has the formula



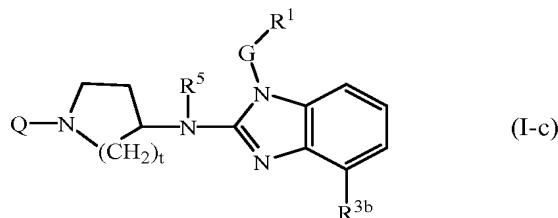
wherein Q, t, R<sup>5</sup>, G and R<sup>1</sup> are as claimed in claim 1; and

R<sup>3a</sup> is C<sub>1-6</sub>alkyl;

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R<sup>3b</sup> is hydrogen or C<sub>1-6</sub>alkyl.

4. A compound as claimed in claim 1, wherein the compound has the formula



5 wherein Q, t, R<sup>5</sup>, G and R<sup>1</sup> are as claimed in claim 1; and  
R<sup>3b</sup> is C<sub>1-6</sub>alkyl.

5. A compound as claimed in any of claims 1 to 4 wherein t is 2.

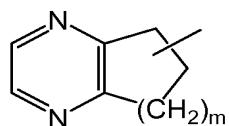
10 6. A compound as claimed in any of claims 1 to 5 wherein G is C<sub>1-10</sub>alkanediyil.

7. A compound according to in any of claims 1 - 5, wherein G is methylene.

15 8. A compound according to any of claims 1 - 7, wherein R<sup>1</sup> is pyridyl optionally substituted with 1 or 2 substituents independently selected from the group consisting of halo, hydroxy, amino, cyano, carboxyl, C<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkyloxy, C<sub>1-6</sub>alkylthio, C<sub>1-6</sub>alkyloxyC<sub>1-6</sub>alkyl, Ar<sup>1</sup>, Ar<sup>1</sup>C<sub>1-6</sub>alkyl, Ar<sup>1</sup>C<sub>1-6</sub>alkyloxy, hydroxyC<sub>1-6</sub>alkyl, mono-or di(C<sub>1-6</sub>alkyl)amino, mono-or di(C<sub>1-6</sub>alkyl)amino-C<sub>1-6</sub>alkyl, polyhaloC<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkylcarbonylamino, C<sub>1-6</sub>alkyl-SO<sub>2</sub>-NR<sup>4a</sup>-, Ar<sup>1</sup>-SO<sub>2</sub>-NR<sup>4a</sup>-, C<sub>1-6</sub>alkyloxycarbonyl, -C(=O)-NR<sup>4a</sup>R<sup>4b</sup>, HO(-CH<sub>2</sub>-CH<sub>2</sub>-O)<sub>n</sub>-, halo(-CH<sub>2</sub>-CH<sub>2</sub>-O)<sub>n</sub>-, C<sub>1-6</sub>alkyloxy(-CH<sub>2</sub>-CH<sub>2</sub>-O)<sub>n</sub>-, Ar<sup>1</sup>C<sub>1-6</sub>alkyloxy(-CH<sub>2</sub>-CH<sub>2</sub>-O)<sub>n</sub>- and mono-or di(C<sub>1-6</sub>alkyl)amino(-CH<sub>2</sub>-CH<sub>2</sub>-O)<sub>n</sub>-.

20 9. A compound according to any of claims 1 - 7, wherein R<sup>1</sup> is pyridyl substituted with 1 or 2 substituents independently selected from the group consisting of hydroxy and C<sub>1-6</sub>alkyl.

25 10. A compound according to any of claims 1 - 7, wherein R<sup>1</sup> is Ar<sup>1</sup>, quinolinyl, benzimidazolyl, a radical of formula



(c-4)

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or pyrazinyl; wherein each of the radicals Ar<sup>1</sup>, quinolinyl, benzimidazolyl, (c-4), or pyrazinyl may optionally be substituted with the substituents of said radicals as claimed in claim1.

5     11. A compound according to any of claims 1 - 7, wherein R<sup>1</sup> is phenyl optionally substituted with one, two or three radicals selected from the group consisting of halo, hydroxy, C<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkyloxy; quinolinyl; a radical (c-4) wherein m is 2, optionally substituted with up to two radicals selected from C<sub>1-6</sub>alkyl; benzimidazolyl optionally substituted with C<sub>1-6</sub>alkyl; pyrazinyl optionally substituted with up to three radicals selected from C<sub>1-6</sub>alkyl.

10     12. A compound according to any of claims 1 - 11, wherein R<sup>5</sup> is hydrogen.

15     13. A compound according to any of claims 1 - 12, wherein Q is C<sub>1-6</sub>alkyl optionally substituted with one or two substituents each independently selected from trifluoromethyl, C<sub>3-7</sub>cycloalkyl, Ar<sup>2</sup>, hydroxy, C<sub>1-4</sub>alkoxy, Ar<sup>2</sup>-oxy-, Ar<sup>2</sup>(CH<sub>2</sub>)<sub>n</sub>oxy, hydroxycarbonyl, aminocarbonyl, C<sub>1-4</sub>alkylcarbonyl, C<sub>1-4</sub>alkoxy-carbonyl, aminocarbonyloxy, Ar<sup>2</sup>(CH<sub>2</sub>)<sub>n</sub>carbonyloxy, C<sub>1-4</sub>alkoxycarbonyl-(CH<sub>2</sub>)<sub>n</sub>oxy, mono- or di(C<sub>1-4</sub>alkyl)aminocarbonyl, aminosulfonyl, mono- or di(C<sub>1-4</sub>alkyl)aminosulfonyl or a heterocycle selected from pyrrolidinyl, pyrrolyl, dihydropyrrolyl, imidazolyl, triazolyl, piperidinyl, homopiperidinyl, piperazinyl and tetrahydropyridyl, wherein each of said heterocycle may optionally be substituted with oxo or C<sub>1-6</sub>alkyl; or Q is C<sub>1-6</sub>alkyl substituted with two substituents wherein one substituent is selected from amino and the other substituent is selected from carboxyl and C<sub>1-6</sub>alkyloxycarbonyl;

20     14. A compound according to any of claims 1 - 12, wherein Q is C<sub>1-6</sub>alkyl optionally substituted with one or two substituents each independently selected from aminocarbonyl, C<sub>1-4</sub>alkoxycarbonyl, aminocarbonyloxy, Ar<sup>2</sup>(CH<sub>2</sub>)<sub>n</sub>carbonyloxy, mono- or di(C<sub>1-4</sub>alkyl)aminocarbonyl, aminosulfonyl, mono- or di(C<sub>1-4</sub>alkyl)aminosulfonyl, pyrrolidinyl, dihydropyrrolyl, piperidinyl, homopiperidinyl and tetrahydropyridyl; or Q is C<sub>1-6</sub>alkyl substituted with two substituents wherein one substituent is amino and the other substituent is selected from carboxyl and C<sub>1-6</sub>alkyloxycarbonyl.

25     15. A compound according to any of claims 1 - 12, wherein Q is C<sub>1-6</sub>alkyl optionally substituted with one substituent selected from aminocarbonyl, C<sub>1-4</sub>alkoxy-carbonyl, aminocarbonyloxy, Ar<sup>2</sup>(CH<sub>2</sub>)<sub>n</sub>carbonyloxy, mono- or di(C<sub>1-4</sub>alkyl)-

-46-

aminocarbonyl, aminosulfonyl, mono- or di(C<sub>1-4</sub>alkyl)aminosulfonyl, pyrrolidinyl, dihydropyrrolyl, piperidinyl, homopiperidinyl and tetrahydropyridyl, and optionally with a second substituent which is hydroxy or Q is C<sub>1-6</sub>alkyl substituted with two substituents wherein one substituent is amino and the other substituent is selected from carboxyl and C<sub>1-6</sub>alkyloxycarbonyl.

10 16. A compound according to any of claims 1 - 12, wherein Q is C<sub>1-6</sub>alkyl substituted with aminocarbonyl, C<sub>1-4</sub>alkoxycarbonyl, aminocarbonyloxy, mono- or di(C<sub>1-4</sub>alkyl)aminocarbonyl, aminosulfonyl, mono- or di(C<sub>1-4</sub>alkyl)aminosulfonyl, pyrrolidinyl, dihydropyrrolyl, piperidinyl, homopiperidinyl or tetrahydropyridinyl.

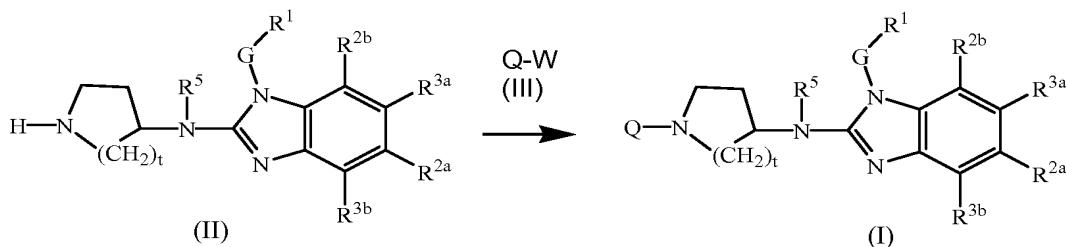
15 17. A compound as claimed in any one of claims 1 to 16 for use as a medicine.

18. A pharmaceutical composition comprising a pharmaceutically acceptable carrier, and as active ingredient a therapeutically effective amount of a compound as claimed in any one of claims 1 to 16.

20 19. A process for preparing a pharmaceutical composition as claimed in claim 18, said process comprising intimately mixing a pharmaceutically acceptable carrier with a therapeutically effective amount of a compound as claimed in any one of claims 1 to 16.

25 20. The use of a compound as claimed in any of claims 1 to 16 for the manufacture of a medicament for inhibiting RSV replication.

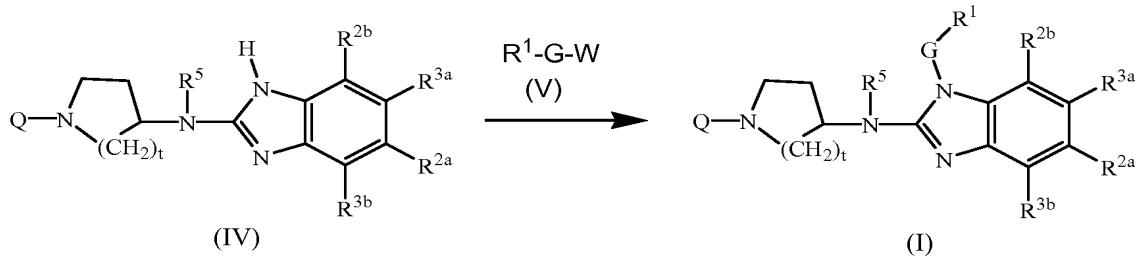
21. A process for preparing a compound as claimed in any of claims 1 to 23, said process comprising  
(a) reacting an intermediate of formula (II) with a reagent (III) as in the following reaction scheme:



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(b) reacting an intermediate of formula (IV) with a reagent (V) as in the following reaction scheme:

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wherein Q, G, t, R<sup>1</sup>, R<sup>2a</sup>, R<sup>2b</sup>, R<sup>3a</sup>, R<sup>3b</sup>, R<sup>5</sup> are as claimed in any of claims 1 to 16; and optionally converting the thus obtained compounds of formula (I) into their pharmaceutically acceptable base-addition or acid addition salt form by treatment with a suitable base or acid and conversely treating the base-addition or acid addition salt form with an acid or a base to obtain the free form of the compound of formula (I).